

**Iowa Department of Natural Resources
Environmental Protection Commission**

ITEM

14

DECISION

TOPIC

Final Rule Without Notice and Notice of Intended Action: Chapters 22 and 33, Air Quality Program Rules – Prevention of Significant Deterioration (PSD) and Title V rules for Ethanol Production facilities

The Department is requesting permission from the Commission to approve a final rule without notice to amend Chapter 22 “Controlling Pollution,” and Chapter 33 “Special Regulations and Construction Permit Requirements for Major Stationary Sources – Prevention of Significant Deterioration (PSD)” of the 567 Iowa Administrative Code. The Department is also requesting permission from the Commission to simultaneously publish a Notice of Intended Action for these amendments.

The purpose of the rule changes is to adopt into the state air quality rules significant changes to the federal air quality regulations for ethanol production facilities.

The Department is requesting final approval without notice because of the potential impacts to new ethanol production facilities in the state. Currently, the Department is reviewing permit applications for approximately eight new projects or expansions. To provide consistency for owners and operators of proposed ethanol production plants, and to eliminate the uncertainty in the timing for the new emissions thresholds, the Department proposes to adopt these federal changes as soon as possible. These changes, which are described in detail below, will be a benefit to ethanol production facilities in the state.

By simultaneously publishing a Notice, the Department will also provide opportunity for public comment on these amendments. The Department will carefully consider all comments, and will adopt any needed changes in a later, final rulemaking.

On April 12, 2007, the Environmental Protection Agency (EPA) modified the definition of “chemical process plants” as it applies to three Clean Air Act permitting programs. These three programs are the:

- Prevention of Significant Deterioration (PSD) permitting program – a preconstruction permitting program for major stationary sources located in areas that meet national ambient air quality standards (NAAQS);
- Nonattainment New Source Review (NSR) permitting program – a preconstruction permitting program for major stationary sources in areas not meeting the NAAQS; and the
- Operating Permits (Title V) program – an operating program for major stationary sources.

The Department's air permitting programs rely upon emissions thresholds to determine when program requirements will apply. If a facility has the potential to emit air pollutants in amounts equal to or greater than the threshold, requirements to obtain permits that outline emissions controls will apply.

The new air pollutant limit for ethanol production for the PSD program will increase from 100 tons per year to 250 tons per year. However, ethanol facilities that also operate fossil-fuel boilers totaling more than 250 million Btu's per hour heat input will still be subject to the 100 tons per year threshold for PSD applicability for that equipment. The thresholds for the Title V programs will remain at current levels, which is 100 tons per year.

The Department is not pursuing state rule changes to the nonattainment NSR program at this time because Iowa currently does not have any areas of the state that are not meeting the NAAQS. The Department will pursue these and other rule changes to the NSR program at such time as it establishes any nonattainment areas in the state. EPA has approved the Department's approach to nonattainment NSR.

The final rules also will no longer require facilities that use carbohydrate feedstocks in producing ethanol to count fugitive emissions of criteria pollutants when determining if they meet or exceed the emissions threshold for the Title V program or PSD programs. Fugitive emissions are emissions that do not come from process stacks or vents. This change may allow some plants to expand production.

Under the final state rules, permitted emissions limits and other requirements for existing sources remain in effect and enforceable. These limits and other requirements may be modified only if the Department agrees to the facility's request for a permit revision. The Department will revise permits if the facility successfully demonstrates that permit modifications meet all requirements that apply to the facility, and that the permit revisions will not contribute to air quality that would violate the NAAQS. The Department will issue permit revisions for existing ethanol facilities on a case by case basis.

Additionally, the Department is working closely with EPA and other states to obtain more clarity on how to implement these changes, particularly for existing facilities. The Department will implement these changes in a manner consistent with EPA direction. If, based on EPA direction, further rule changes are needed; the Department will pursue later rulemakings, as needed.

If the Commission approves these final rules, the amendments will be published in the Iowa Administrative Code on August 1, 2007, and will become effective on September 5, 2007.

If the Commission approves the Notice of Intended Action, a public hearing will be held on Wednesday, September 5, 2007, at 10 AM at the Department's Air Quality Bureau offices. The public comment period for the proposed rules will close on Thursday, September 6.

An administrative rule fiscal impact statement is attached.

Christine Paulson
Environmental Specialist Senior
Program Development Section, Air Quality Bureau
Memo date: June 11, 2007

ENVIRONMENTAL PROTECTION COMMISSION [567]

Adopted and Filed Without Notice

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission hereby amends Chapter 22, “Controlling Pollution,” and Chapter 33, “Special Regulations and Construction Permit Requirements for Major Stationary Sources—Nonattainment Areas and Prevention of Significant Deterioration (PSD) of Air Quality,” Iowa Administrative Code.

The purpose of the rule changes is to adopt into the state air quality rules significant changes to the federal air quality regulations for ethanol production facilities.

The Department is adopting these amendments without notice because of the potential impacts to new ethanol production facilities in the state. Currently, the Department is reviewing permit applications for approximately eight new projects or expansions. To provide consistency for owners and operators of proposed ethanol production plants, and to eliminate the uncertainty in the timing for the new emissions thresholds, the Department proposes to adopt these federal changes as soon as possible. These changes, which are described in detail below, will be a benefit to ethanol production facilities in the state.

On April 12, 2007, the Environmental Protection Agency (EPA) modified the definition of “chemical process plants” as it applies to three Clean Air Act permitting programs. These three programs are the:

- Prevention of Significant Deterioration (PSD) permitting program – a preconstruction permitting program for major stationary sources located in areas that meet national ambient air quality standards (NAAQS);

- Nonattainment New Source Review (NSR) permitting program – a preconstruction permitting program for major stationary sources in areas not meeting the NAAQS; and the
- Operating Permits (Title V) program – an operating program for major stationary sources.

The Department's air permitting programs rely upon emissions thresholds to determine when program requirements will apply. If a facility has the potential to emit air pollutants in amounts equal to or greater than the threshold, requirements to obtain permits that outline emissions controls will apply.

The new air pollutant limit for ethanol production for the PSD program will increase from 100 tons per year to 250 tons per year. However, ethanol facilities that also operate fossil-fuel boilers totaling more than 250 million Btu's per hour heat input will still be subject to the 100 tons per year threshold for PSD applicability for that equipment. The thresholds for the Title V programs will remain at current levels, which is 100 tons per year.

The Department is not pursuing state rule changes to the nonattainment NSR program at this time because Iowa currently does not have any areas of the state that are not meeting the NAAQS. The Department will pursue these and other rule changes to the NSR program at such time as it establishes any nonattainment areas. EPA has approved the Department's approach to nonattainment NSR.

The adopted amendments also will no longer require facilities that use carbohydrate feedstocks in producing ethanol to count fugitive emissions of criteria pollutants when determining if they meet or exceed the emissions threshold for the Title V program or PSD

programs. Fugitive emissions are emissions that do not come from process stacks or vents. This change may allow some plants to expand production.

Under the adopted amendments, permitted emissions limits and other requirements for existing sources remain in effect and enforceable. These limits and other requirements may be modified only if the Department agrees to the facility's request for a permit revision. The Department will revise permits if the facility successfully demonstrates that permit modifications meet all requirements that apply to the facility, and that the permit revisions will not contribute to air quality that would violate the NAAQS. The Department will issue permit revisions for existing ethanol facilities on a case by case basis.

Additionally, the Department is working closely with EPA and other states to obtain more clarity on how to implement these changes, particularly for existing facilities. The Department will implement these changes in a manner consistent with EPA direction. If, based on EPA direction, further rule changes are needed; the Department will pursue later rulemakings, as needed.

Item 1 amends rule 567—22.100(455B), which contains the definitions for the Title V Operating Permit program, by revising the explanation of "chemical process plants" that is contained in the definition of "stationary source categories." The amendment states that chemical processing plants shall not include ethanol production facilities that produce ethanol by natural fermentation included in the North American Industry Classification System (NAICS) codes 325193 or 312140.

The NAICS is a new classification system that the federal government uses to identify industry sources affected by federal regulations. Traditionally, EPA has used the Standard Industrial Classification System (SIC), which is a similar system. In fact, EPA explains that

when they originally interpreted the “chemical process plants” term by guidance, they did so in reference to SIC 28. Since the time EPA defined the chemical process plant based solely on reference to SIC 28, the federal government replaced the SIC code manual with the NAICS.

Because the NAICS gives special attention to emerging industries (such as ethanol production) and NAICS groups similar production processes together, EPA has decided to use NAICS codes for purposes of their final regulations for ethanol production plants. The NAICS codes and more information about the relationship between SIC and NAICS is available on EPA's website at <http://www.epa.gov/ttn/chief/codes/index.html#naics>.

Item 2 amends subrule 33.3(1), by revising the explanation of "chemical process plants" contained under the definition of "major stationary source" in the same manner as described above for Item 1.

Item 3 amends subrule 33.3(9) to update the reference to the federal regulations that list the exemptions from certain requirements for PSD-subject sources. In the federal regulations being adopted by reference in subrule 33.3(9), the description of "chemical process plants" was amended in the same manner as described above for Item 1.

These amendments are also published herein under Notice of Intended Action as **ARC** _____ to allow public comment. As described above, the adopted and filed without notice permits the Department to adopt the provisions in new federal regulations as soon as possible.

These amendments are intended to implement Iowa Code section 455B.133.

These amendments will become effective on September 5, 2007.

The following amendments are adopted.

ITEM 1. Amend rule **567—22.100(455B)**, the definition of "stationary source categories," numbered item "20. Chemical process plants," as follows:

"Stationary source categories" means any of the following classes of sources:

1. Coal cleaning plants with thermal dryers;
2. Kraft pulp mills;
3. Portland cement plants;
4. Primary zinc smelters;
5. Iron and steel mills;
6. Primary aluminum ore reduction plants;
7. Primary copper smelters;
8. Municipal incinerators capable of charging more than 250 tons of refuse per day;
9. Hydrofluoric, sulfuric, or nitric acid plants;
10. Petroleum refineries;
11. Lime plants;
12. Phosphate rock processing plants;
13. Coke oven batteries;
14. Sulfur recovery plants;
15. Carbon black plants using the furnace process;
16. Primary lead smelters;
17. Fuel conversion plants;
18. Sintering plants;
19. Secondary metal production plants;

20. Chemical process plants — The term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;

21. Fossil-fuel boilers, or combinations thereof, totaling more than 250 million Btu's per hour heat input;

22. Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;

23. Taconite ore processing plants;

24. Glass fiber processing plants;

25. Charcoal production plants;

26. Fossil fuel-fired steam electric plants of more than 250 million Btu's per hour heat input;

27. Any other stationary source category, which as of August 7, 1980, is regulated under Section 111 or 112 of the Act.

ITEM 2. Amend subrule **33.3(1)**, the definition of "major stationary source," numbered item 1. (a), bulleted item, "chemical process plants," as follows:

“Major stationary source” means:

1. (a) Any one of the following stationary sources of air pollutants which emits, or has the potential to emit, 100 tons per year or more of any regulated NSR pollutant:

- Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input;

- Coal cleaning plants (with thermal dryers);

- Kraft pulp mills;

- Portland cement plants;
- Primary zinc smelters;
- Iron and steel mill plants;
- Primary aluminum ore reduction plants;
- Primary copper smelters;
- Municipal incinerators capable of charging more than 250 tons of refuse per day;
- Hydrofluoric, sulfuric, and nitric acid plants;
- Petroleum refineries;
- Lime plants;
- Phosphate rock processing plants;
- Coke oven batteries;
- Sulfur recovery plants;
- Carbon black plants (furnace process);
- Primary lead smelters;
- Fuel conversion plants;
- Sintering plants;
- Secondary metal production plants;
- Chemical process plants (which does not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140);
- Fossil-fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input;

- Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;

- Taconite ore processing plants;
- Glass fiber processing plants; and
- Charcoal production plants.

(b) Notwithstanding the stationary source size specified in paragraph “1”(a), any stationary source which emits, or has the potential to emit, 250 tons per year or more of a regulated NSR pollutant; or

(c) Any physical change that would occur at a stationary source not otherwise qualifying under this definition as a major stationary source if the change would constitute a major stationary source by itself.

2. A major source that is major for volatile organic compounds or NO_x shall be considered major for ozone.

3. The fugitive emissions of a stationary source shall not be included in determining for any of the purposes of this rule whether it is a major stationary source, unless the source belongs to one of the categories of stationary sources listed in paragraph “1” (a) of this definition or to any other stationary source category which, as of August 7, 1980, is being regulated under Section 111 or 112 of the Act.

ITEM 3. Amend subrule **33.3(9)**, as follows:

33.3(9) Exemptions. The provisions for allowing exemptions from certain requirements for PSD–subject sources as specified in 40 CFR 52.21(i) as amended through ~~November 29, 2005~~, May 1, 2007, are adopted by reference.

Date

Richard A. Leopold, Director

ENVIRONMENTAL PROTECTION COMMISSION [567]

Notice of Intended Action

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission hereby gives Notice of Intended Action to amend Chapter 22, “Controlling Pollution,” and Chapter 33, “Special Regulations and Construction Permit Requirements for Major Stationary Sources—Nonattainment Areas and Prevention of Significant Deterioration (PSD) of Air Quality,” Iowa Administrative Code.

The purpose of the rule changes is to adopt into the state air quality rules significant changes to the federal air quality regulations for ethanol production facilities.

Any person may make written suggestions or comments on the proposed amendments on or before September 6, 2007. Written comments should be directed to Christine Paulson, Department of Natural Resources, Air Quality Bureau, 7900 Hickman Road, Suite 1, Urbandale, Iowa 50322; fax (515) 242-5094; or by electronic mail to christine.paulson@dnr.state.ia.us.

A public hearing will be held on Wednesday, September 5, 2007, at 10 a.m. in the conference rooms at the Department’s Air Quality Bureau located at 7900 Hickman Road, Urbandale, Iowa. Comments may be submitted orally or in writing at the public hearing. All comments must be received no later than September 6, 2007.

Any person who intends to attend the public hearing and has special requirements such as those related to hearing or mobility impairments should contact Christine Paulson at (515) 242-5154 to advise of any specific needs.

These amendments were also Adopted and Filed Without Notice and are published herein as **ARC** _____. The content of that submission is incorporated herein by reference.

These amendments are intended to implement Iowa Code section 455B.133.

Date

Richard A. Leopold, Director

Administrative Rule Fiscal Impact Statement

Date: June 11, 2007

Agency: Department of Natural Resources

IAC Citation: 567 IAC Chapter 33(455B)

Agency Contact: Anne Preziosi

Summary of the Rule: The U.S. Environmental Protection Agency (EPA) promulgated revisions to the Prevention of Significant Deterioration (PSD) and Title V permit programs for ethanol processing plants. The new rules allow ethanol plants to emit up to 250 tons per year of any regulated pollutant before being subject to PSD. Previously, the PSD applicability threshold for ethanol plants was 100 tons per year. However, ethanol plants that also operate fossil fuel boilers totaling more than 250 million Btu's per hour heat input are still subject to the 100 ton-per-year PSD threshold for that equipment. The new rules also state that ethanol processing plants no longer need to include fugitive emissions in determining applicability for the PSD and Title V programs. The Department is seeking to adopt these federal regulations as soon as possible

Fill in this box if the impact meets these criteria:

☒ No Fiscal Impact to the State.

☐ Fiscal Impact of less than \$100,000 annually or \$500,000 over 5 years.

☐ Fiscal Impact cannot be determined.

Brief Explanation:

The Department is currently implementing the PSD and the Title V permit programs. Rule changes will not affect expenditures or revenues to the state.

Fill in the form below if the impact does not fit the criteria above:

☐ Fiscal Impact of \$100,000 annually or \$500,000 over 5 years.

* Fill in the rest of the Fiscal Impact Statement form.

Assumptions:

Describe how estimates were derived:

Estimated Impact to the State by Fiscal Year

	<u>Year 1 (FY)</u>	<u>Year 2 (FY)</u>
Revenue by Each Source:		
GENERAL FUND		
FEDERAL FUNDS		
Other (specify)		
TOTAL REVENUE	_____	_____
Expenditures:		
GENERAL FUND		
FEDERAL FUNDS		
Other (specify)		
TOTAL EXPENDITURES	_____	_____
NET IMPACT		

☒ This rule is required by State law or Federal mandate.

Please identify the state or federal law:

The PSD and Title V programs are mandated in part C of Title I and in Section and 502(a) of the U.S. Clean Air Act. Federal regulations are set forth in 40 CFR 52.21, 51.166 and Part 70.

Funding has been provided for the rule change.

Please identify the amount provided and the funding source:

☒ Funding has not been provided for the rule.

Please explain how the agency will pay for the rule change:

The agency will not need additional revenue to implement this rule.

Fiscal impact to persons affected by the rule:

Owners and/or operators of new or expanding ethanol processing plants will be affected by this rulemaking. The affect will be of benefit to these industries because it will allow new or expanding ethanol plants to emit up to 250 tons per year of any regulated air pollutant before being subject to the PSD program. Previously, the applicability limit for ethanol plants was 100 tons per year. Additionally, new or expanding ethanol plants will not need to include fugitive emissions when determining applicability for the PSD or Title V programs.

Fiscal impact to Counties or other Local Governments (required by Iowa Code 25B.6):

None.

* If additional explanation is needed, please attach extra pages.

Agency Representative preparing estimate: Christine Paulson
Telephone Number: 242-5154